REMARKS/ARGUMENTS

Favorable reconsideration of this application as above amended and in light of the following discussion is respectfully requested.

Claims 1-39 are presently active in this case, Claims 1, 6 and 9 having been amended by the present amendment.

In the outstanding Office Action, Claims 1-10, 28, 29, 34 and 35 were rejected under 35 U.S.C. §102(a) as being anticipated by Lee et al. (US Patent Publication 2001/0048753 A1); Claims 11-23, 30-32 and 36-38 are rejected under 35 U.S.C. §103(a) as being unpatentable over Lee et al. in view of Jasinschi (USP 6,504,569 B1); and Claims 24-27, 33 and 39 were rejected under 35 U.S.C. §103(a) as being unpatentable over Lee et al. in view of Panoramic Image Mosaic.

The above changes to the specification correct minor informalities and do not raise a question of new matter.

In light of the several grounds for rejection, Claims 1 and 6 have been amended to clarify the "approximating functions" feature recited in these claims. To that end, amended Claim 1 recites: "approximating trajectories with functions, the trajectories being obtained by arranging, in the frames advancing direction, reference position data about one of said plurality of points in each of said frames and relative position data about remaining points in each of said frames, the relative position data referring to the reference position date in the same frame." Similar language is employed in amended Claim 6. No new matter has been added.

Briefly recapitulating, as stated in Claim 1, for example, Applicants' invention is directed method including

approximating the object using a figure for each of said frames;

extracting a plurality of points representing the figure for each of said frames;

approximating trajectories with functions, the trajectories being obtained by arranging, in the frames advancing direction, reference position data about one of said plurality of points in each of said frames and relative position data about remaining points in each of said frames, the relative position data referring to the reference position data in the same frame; and

describing the object region data using the function.[1]

Therefore, the amount of data used to determine the object region is decreased effectively and handling is made easier.

Though the Outstanding Office Action states that Lee et al. in paragraph [0085] discloses "approximating trajectories with functions, the trajectories being obtained by arranging, in the frames advancing direction, position data about one of said plurality of points and relative position data about remaining points with reference to said one of said plurality of points (claim 1)," in fact Applicants respectfully submit that Lee et al. merely teaches that the previous motion parameters can be used as the starting point of the current motion estimation process (column 7, last line to column 8, line 1). There is no teaching in Lee et al. about "approximating trajectories with functions, the trajectories being obtained by arranging, in the frames advancing direction, reference position data about one of said plurality of points in each of said frames and relative position data about remaining points in each of said frames, the relative position data referring to the reference position data in the same frame," and the only source of such teaching is Applicants' disclosure.

Likewise, the Outstanding Office Action states that Lee et al. in paragraphs [0074] - [0077] discloses "approximating trajectories with functions, the trajectories being obtained by arranging, in the frames advancing direction, position data about said plurality of points in a

[1] Claim 6 is similar, but recites, "approximating trajectories with functions, the trajectories being obtained by arranging, in the frames advancing direction, reference position data about said plurality of points **in a predetermined frame** and relative position data about said plurality of points **in a succeeding frame**, the relative position data referring to the reference position data in the same frame," where emphasis is added to contrast the language of Claim 1.

reference frame and relative position data about said plurality of points in a succeeding frame with reference to the position data about said plurality of points in the reference frame (claim 6)," it is respectfully submitted that Lee et al. merely teaches automatic subsequent-frame boundary tracking in which once the adjusted boundary has been determined, it is tracked into successive predicted frames. There is no teaching in Lee et al. about "approximating trajectories with functions, the trajectories being obtained by arranging, in the frames advancing direction, reference position data about said plurality of points in a predetermined frame and relative position data about said plurality of points in a succeeding frame, the relative position data referring the reference position data," and the only source of such teaching is Applicants' disclosure.

Accordingly, in view of the above noted deficiencies in Lee et al., it is respectfully submitted that Claims 1 and 6 patentably define over Lee et al.

Claim 11 includes a step of describing the object region data using depth information of the object as well as functions approximating trajectories of data indicating positions of the points. It is respectfully submitted that Jasinschi et al. merely teaches that the image feature points are used to estimate three-dimensional object velocity and depth and a dense three-dimensional depth map is generated by the depth and motion information (column 1, lines 37-53). It is respectfully submitted, therefore, that Jasinschi et al. does not suggest to describe the object using depth information of the object and functions approximating trajectories of data indicating positions of the points. Accordingly, it is respectfully submitted that the outstanding rejection of Claim 11 is traversed.

Claim 16 includes the step of "describing the object region data using the functions and display flag information indicating a range of frames in which the object or each of said points is visible or not." In comparison, Jasinschi et al. merely teaches the alpha image which is a binary mask that determines the "valid" regions inside each image,

i.e., the regions of interest or objects. The Jasinschi et al. reference does not suggest to describe the object using the functions and display flag information indicating a range of frames in which the object or each of said points is visible or not. Accordingly, it is respectfully submitted that the outstanding rejection of Claim 16 is traversed.

Claim 20 recites the step of "describing the object region data using the functions and object passing range information indicating a range where the figure approximating the object exist over said plurality of frames." Lee et al. merely teaches a semantic video extraction system in which a frame boundary is tracked. Lee et al. does not teach to describe the object region data using object passing range information of the object. Accordingly, it is respectfully submitted that the outstanding rejection of Claim 20 is traversed.

Claim 24 recites the steps of "extracting a plurality of points representing the figure in a coordinate system of the panorama image" and "describing the object region data using the functions [approximating trajectories of data indicating positions of the points]." The "Panoramic Image Mosaic" reference merely teaches panoramic image mosaics (Abstract and the last paragraph of page 2), and does not teach that the noted steps recited in Claim 24.

In view of the above comments, Claims 1, 6, 16, 20 and 24 and the claims dependent therefore, are believed to be clearly patentably distinguishing over the cited art and to be allowable. The remaining Claims 28-39 are believed to be similarly allowable.

Consequently, in view of the present amendment and in light of the above comments, no further issues are believed to be outstanding in this application, and the present application

is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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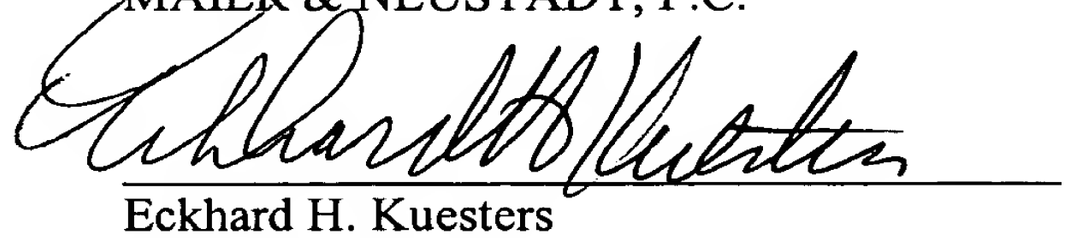

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